

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1-50 (Canceled)

51. (Currently Amended) A computer-readable medium having computer-executable instructions for processing a data stream embodying a hierarchically structured document by performing acts comprising:

partitioning said data stream into fixed length segments utilizing said hierarchical structure to determine a length of each fixed length segment;

processing said fixed length segments in a pipeline fashion;

~~A computer-readable medium in accordance with claim 28, further comprising:~~

creating a new read cache comprising existing unresolved queries and receiving a source data stream, wherein a read cache is utilized to read a fixed length segment of passing stream data;

creating an empty write cache, wherein a write cache is utilized to provide fixed length segments of stream data;

associating said empty write cache with an existing instance of a re-writer, wherein a re-writer is utilized to provide a copy of a fixed length segment of stream data; and

providing a copy of said source data stream as an output data stream from said empty write cache.

52. (Currently Amended) A computer-readable medium having computer-executable instructions for processing a data stream embodying a hierarchically structured document by performing acts comprising:

partitioning said data stream into fixed length segments utilizing said hierarchical structure to determine a length of each fixed length segment;

~~A computer-readable medium in accordance with claim 28, further comprising:~~

- obtaining a fixed length segment of source stream data from an associated read cache;
- consuming said fixed length segment of source stream data;
- resolving pending queries on said source stream data;
- creating a mutator stream of data from said source stream of data, wherein mutations in said mutator stream are in accordance with write requests cached in an associated write cache;
- consuming an output stream of data from said mutator stream of data; and
- resolving queries on said output stream;
- discarding resolved queries; and
- embedding values associated with said resolved queries in said output stream.

53. (Original) A computer-readable medium in accordance with claim 51, further comprising:

- determining if a read-query to read said data stream is safe, wherein a safe read-query is a semantically correct query;

- if said read-query is safe:

- searching a write cache for a value associated with said read-query;
 - if said value is found in said write cache, returning said value to a user;
 - if said value is not found in said write cache, forwarding said read-query to a read cache;

if said query is not safe:

obtaining said output stream from a current instance; and

extracting said read-query from said obtained output stream.

54. (Original) A computer-readable medium in accordance with claim 51, further comprising:

determining if a write request to write a data stream is safe, wherein a safe write request is semantically correct;

if said write request is safe:

searching a write cache for a value associated with said write request;

if said value is found in said write cache, replacing said associated value with a value of said write request;

if said value is not found in said write cache, creating a new entry in said write cache having said value of said write request;

if said write request is not safe:

creating an intermediate stream writer for separating existing write requests from said unsafe write request;

creating a new stream writer; and

returning said new stream writer to a user.

55-61. (Canceled)